Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute	e for form l	449/PTO	Con	nalata if Knawn
3003111011			Con	nplete if Known
	N IN	FORMATION DISCLOSURE FATEMENT BY APPLICANT	Application Number	10/824,743
OIP	E / 11	TORMATION DISCLOSURE	Filing Date	April 15, 2004
10	8081	ATEMENT BY APPLICANT	First named Inventor	David Edwin Thurston
	8\		Group Art Unit	1626
APR 26	2006	(use as many sheets as necessary)	Examiner name	Coppins, Janet L.
	8/	Sheet 1 of 2	Attorney Docket Number	065435-9035-US00
	F/			
35	.039/		U.S. Patent Documents	
Examiner Initials		U.S. Patent Document Number	Name of Patentee or Applicant of Ci Document	ted Date of Publication of Cited Document
JC		6,660,856	Wang	12/9/2003

	FOREIGN PATENT DOCUMENTS								
Examiner Initials	Country Code	Foreign Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Translation	English Abstract			
JC	EP	1193270	Spirogen Ltd.	4/3/2002					
JC	GB	2053894	The Green Cross Corporation	2/11/1981					
JC	wo	88/04659	The Upjohn Company	6/30/1988					
JC	wo	91/16324	The Upjohn Company	10/31/1991					
JC	wo	96/23497	Synphar Laboratories, Inc.	8/8/1996					
JC	wo	97/07097	Auckland Division Cancer Society of New Zealand Inc.	2/27/1997					
JC	wo	98/11101	Auckland Division Cancer Society of New Zealand Inc.	3/19/1998					
JC	wo	98/12197	Kyorin Pharmaceuticals Co., Ltd. et al.	3/26/1998	N	Y			
JC	wo	99/29642	The Scripps Research Institute	6/17/1999					
JC	wo	99/46244	Novo Nordisk A/S et al.	9/16/1999					

Examiner Signature	/Janet Coppins/	Date Considered	07/23/2006
Signature	, dance coppins,	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer. Patent and Trademark Office, Washington, DC 0231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute fo	or form 1449/P	ТО			Complete	if Know	n	
	INFO	RMATION DISCLOSU	RE Z	Application Num	nber	10/824,74	3	
		EMENT BY APPLICA		iling Date		April 15,	2004	
	SIAI	ENLENT BY APPLICA	14.T	irst named Inv	entor	David Ed	win Thurston	
				Froup Art Unit		1626		
	(u	se as many sheets as necessary)	E	xaminer name		Coppins,	Janet L.	
		Sheet 2 of 2		Attorney Docket	Number	065435-9	035-US00	
			U.S. Patent De	ocuments			··	
		I	FOREIGN PATENT	DOCUME	NTS			
Examiner Initials	Country Code	Foreign Patent Document Number	Name of Pater Applicant of Cited		Date of Publication Document	of Cited	Translation	English Abstract
JC	wo	00/12508	The University of Portsmouth Higher Education Corp.		3/9/2000			
JC	wo	00/12509	The University of I Higher Education	Portsmouth	3/9/2000			
JC	wo	00/64864	Cancer Campaign Technology		11/2/2000			
JC	wo	2004/043963	Spirogen L	td.	5/27/2004			
JC	wo	2005/023814	Spirogen L	.td.	3/17/2005			
JC	wo	2005/040170	Government of the al.	U.S.A. et	5/6/2005			
JC	wo	2005/085251	Spirogen L	td.	9/15/2005			

Examiner Signature	/Janet Coppins/	Date Considered	07/23/2006
		Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer. Patent and Trademark Office, Washington, DC 0231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box Alexandria, VA 22313-1450.

APR 26 2006 Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO

Sheet

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

	Complete if Known
Application Number	10/824,743
Filing Date	April 15, 2004
First Named Inventor	David Edwin Thurston
Group Art Unit	1626
Examiner Name	Coppins, Janet L.
Attorney Docket Number	065435-9035-US00

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	ADAMS et al., "Molecular modelling of a sequence-specific DNA-binding agent based on the pyrrolo[2,1-c][1,4]benzodiazepines," Pharm. Pharmacol. Commun. (1999) 5:555-560
JC	BARALDI, P.G. et al., "[2,1-c][1,4]benzodiazepine (PBD)-distamycin hybrid inhibits DNA binding to transcription factor Sp1," Nucleotides and Nucleic Acids (2000) 19(8):1219-1229
JC	BERGE et al., "Pharmaceutical Salts," J. Pharm. Sci. (1977) 66:1-19
JC	BORGATTI, M. et al., "Inhibition of NF-kB/DNA interactions and HIV-1 LTR directed transcription by hybrid molecules containing pyrrolo [2,1-c][1,4] benzodiazepine (PBD) and oligopyrrole carriers," Drug Development Research (2003) 60(3):173-185
JC	BOSE, D.S. et al., "Effect of linker length on DNA-binding affinity, cross-linking efficiency and cytotoxicity of C8 linked pyrrolobenzodiazepine dimers," J. Chem. Soc. Chem. Commun. (1992) 20:1518-1520
JC	CHEN, Z. et al., "A novel approach to the synthesis of cytotoxic C2-C3 unsaturated pyrrolo[2,1-c][1,4]benzodiazepines (PBDs) with conjugated acrylyl C2-substituents," Biorg. Med. Chem. Lett. (2004) 14:1547-1549
JC	COOPER, N. et al., "Synthesis of novel PBDs as anti-tumour agents," Chem. Commun. (2002) 16:1764-1765
JC	DE GROOT, FMH et al., "Synthesis and biological evaluation of 2'-carbamate-linked 2'-carbonate-linked prodrugs of paclitaxel: selective activation by the tumor-associated protease plasmin," J. Med. Chem. (2000) 43(16):3093-3102
JC	DE GROOT, FMH et al., "Novel 20-carbonate linked prodrugs of camptothecin and 9-aminocamptothecin designed for activation by tumour-associated plasmin," Biorg. Med. Chem. Lett. (2002) 12(17):2371-2376

Examiner	/Janet Coppins/	Date	07/23/2006
Signature	/Janet Coppins/	Considered	07/23/2006

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO				Complete if Known		
				Application Number	10/824,743	
INFOR	INFORMATION DISCLOSURE			Filing Date	April 15, 2004	
STATEMENT BY APPLICANT			<b>ICANT</b>	First Named Inventor	David Edwin Thurston	
				Group Art Unit	1626	
(use as many sheets as necessary)				Examiner Name	Coppins, Janet L.	
Sheet	2	of	5	Attomey Docket Number	065435-9035-US00	

OTHER RELOCATE NON BATENET ITERS AT THE POOL OF MENTS

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	DUBOWCHIK, G.M. et al., "Cathepsin B-sensitive dipeptide prodrugs. 1. A model study of structural requirements for efficient release of doxorubicin," Biorg. Med. Chem. Lett. (1998) 8:3341-3346
JC	DUBOWCHIK, G.M. et al., "Cathepsin B-sensitive dipeptide prodrugs. 2. Models of anticancer drugs paclitaxel (Taxol), Mitomycin C and Doxorubicin," Biorg. Med. Chem. Lett. (1998) 8:3347-3352
JC	DUBOWCHIK and WALKER, "Receptor-mediated and enzyme-dependent targeting of cytotoxic anticancer drugs," Pharmacology and Therapeutics (1999) 83:67-123
JC	GARSKY et al., "The synthesis of a prodrug of doxorubicin designed to provide reduced systemic toxicity and greater target efficacy," J. Med. Chem. (2001) 44:4216-4224
JC	GREGSON, S.J. et al., "Effect of C2/C3-endo unsaturation on the cytotoxicity and DNA-binding reactivity of pyrrolo-[2,1-c][1,4]-benzodiazepines," Bioorg. Med. Chem. Lett. (2000) 10(16):1849-1851
JC	GREGSON, S.J. et al., "Linker length modulates DNA cross-linking reactivity and cytotoxic potency of C8/C8' ether-linked C2-exo-unsaturated pyrrolo[2,1-c][1,4]benzodiazepine (PBD) dimers," J. Med. Chem. (2004) 1161-1174
JC	GREGSON, S.J. et al., "Synthesis of the first example of a C2-C3/C2'-C3'-endo unsaturated pyrrolo[2,1-c][1,4]benzodiazepine dimer," Biorg. Med. Chem. Lett. (2001) 11:2859-2862
JC	GREGSON, S.J. et al., "Synthesis of the first examples of A-C8/C-C2 amide-linked pyrrolo[2,1-c][1,4]benzodiazepine dimers," Biorg. Med. Chem. Lett. (2003) 13:2277-2280
JC	HAMBURGER, A.W. et al., "Primary bioassay of human tumor stem cells," Science (1977) 197:461-643

Examiner	/Janet Coppins/	Date	07/23/2006
Signature	/Janet Coppins/	Considered	07,20,200

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO					Complete if Known	
				Application Number	10/824,743	
INFOR	INFORMATION DISCLOSURE			Filing Date	April 15, 2004	
STATE	STATEMENT BY APPLICANT			First Named Inventor	David Edwin Thurston	
i				Group Art Unit	1626	
(use as many sheets as necessary)			)	Examiner Name	Coppins, Janet L.	
Sheet	3	of	5	Attorney Docket Number	065435-9035-US00	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.				
JC	JAKOBSEN et al., "Design, synthesis, and pharmacological evaluation of thapsigargin analogues for targeting apoptosis to prostatic cancer cells," J. Med. Chem. (2001) 44:4696-4703				
JC	KAMAL et al., "Synthesis and DNA-binding affinity of A-C8/C-C2 alkoxyamido-linked pyrrolo[2,1-c][1,4]benzodiazepine dimers" Biorg. Med. Chem. Lett. (2003) 13(22):3955-3958				
JC	KAMAL, et al., "Synthesis of pyrrolo[2,1-c][1,4]benzodiazepines via reductive cyclization of w-azido carbonyl compounds by TMSI: an efficient preparation of antibiotic DC-81 and its dimers," Biorg. Med. Chem. Lett. (2000) 10:2311-2313				
JC	KANEKO, T. et al., "Bicyclic and tricyclic analogues of anthramycin," J. Med. Chem. (1985) 28:388-392				
JC	KANG, GD. et al., "Synthesis of a novel C2-aryl substituted 1,2-unsaturated pyrrolobenzodiazepine," Chem. Commun. (2003) 1688-1689				
JC	KUMAR, R. et al., "Synthesis and antitumor cytotoxicity evaluation of novel pyrrolo[2,1-c][1,4]benzodiazepine imidazole containing polyamide conjugates," Oncology Research (2003) 13(4):221-223				
JC	KUMAR, R. et al., "Design and synthesis of novel pyrrolo[2,1-c][1,4]benzodiazepine - imidazole containing polyamide conjugates," Heterocyclic Communications (2002) 81(1):19-26				
JC	KUMAR, R. et al., "Design, synthesis and in vitro cytotoxicity studies of novel pyrrolo [2,1][1,4]benzodiazepine-glycosylated pyrrole and imidazole polyamide conjugates," Org. Biomol. Chem. (2003) 1(19):3327-3342				
JC	LANGLOIS, N. et al., "Synthesis and cytotoxicity on sensitive and doxorubicin-resistant cell lines of new pyrrolo[2,1-c][1,4]benzodiazepines related to anthramycin," J. Med. Chem. (2001) 44:3754-3757				

Examiner	/Janet Coppins/	Date	07/22/2006
Signature		Considered	07/23/2006

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO			Complete if Known			
				Application Number	10/824,743	
INFORMATION DISCLOSURE			OSURE	Filing Date	April 15, 2004	
STATE	STATEMENT BY APPLICANT			First Named Inventor	David Edwin Thurston	
OTHERWISH DI MITERONIA		Group Art Unit	1626			
(use as many sheets as necessary)			)	Examiner Name	Coppins, Janet L.	
Sheet	4	of	5	Attorney Docket Number	065435-9035-US00	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	LIPSHUTZ, B.H. et al., "Pd(II)_Catalyzed Acetal/Ehtal Hydrolysis/Exchange Reactions," Tetrahedron Lett. (1985) 26(6):705-708
JC	MHAKA et al., "A 5-fluorodeoxyuridine prodrug as targeted therapy for prostate cancer," Biorg. Med. Chem. Lett. (2002) 12(17:2459-2461
JC	MISCHIATI, C. et al., "Binding of hybrid molecules containing pyrrolo [2,1-c][1,4]benzodiazepine (PBD) and oligopyrrole carriers to the human immunodeficiency type 1 virus TAR-RNA," Biochem. Pharmacol. (2004) 67(3):401-410
JC	MORI, M. et al., "Total syntheses of prothracarcin and tomaymycin by use of palladium catalyzed carbonylation," Tetrahedron (1986) 42(14):3793-3806
JC	MOUNTZOURIS, J.A. et al., "Comparison of a DSB-120 DNA interstrand cross-linked adduct with the corresponding bis-Tomamycin adduct," J. Med. Chem. (1994) 37:3132-3140
JC	NICULESCU-DUVAZ, D. et al., "Self-immolative nitrogen mustard prodrugs for suicide gene therapy," J. Med. Chem. (1998) 41(26):5297-5309
JC	REDDY et al., "Design, synthesis and in vitro cytotoxicity studies of novel pyrrolo[2,1-c][1,4]benzodiazepine (PBD)-polyamide conjugates and 2,2'-PBD dimers," Anti-Cancer Drug Design (2000) 15(3):225-228
JC	SMELLIE, M. et al., "Cellular pharmacology of novel C8-linked anthramycin-based sequence-selective DNA minor groove cross-linking agents," Br. J. Cancer (1994) 70:48-53
JC	SMELLIE, M. et al., "Sequence selective recognition of duplex DNA through covalent interstrand cross-linking," Biochem. (2003) 42:8232-8239

Examiner	/Janet Coppins/	Date	07/23/2006
Signature		Considered	07/23/2000

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO			Complete if Known			
				Application Number	10/824,743	
INFORMATION DISCLOSURE			OSURE	Filing Date	April 15, 2004	
STATEMENT BY APPLICANT		First Named Inventor	David Edwin Thurston			
		Group Art Unit	1626			
(use as many sheets as necessary)		Examiner Name	Coppins, Janet L.			
Sheet	5	of	5	Attorney Docket Number	065435-9035-US00	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	THURSTON, D.E., "Nucleic acid targeting: therapeutic strategies for the 21st century," Brit. J. Cancer (1999) 80(1):65-85
JC	TIBERGHIEN, A.C. et al., "Application of the stille coupling reaction to the synthesis of C2-substituted endo-exo unsaturated pyrrolo[2,1-c][1,4]benzodiazepines (PBDs)," Biorg. Med. Chem. Lett. (2004) 14:5041-5044
JC	WELLS, G. et al., "Pyrrolobenzodiazepine-polyamide libraries: synthesis and DNA binding selectivity," Proc. Am. Assoc. Canc. Res. (2003) 44:85-86, #452
JC	WERMUTH et al., "Molecular Variations Based on Isosteric Replacements," The Practice of Medicinal Chemistry, Chapter 13 (1996) 203-237
JC	WILLIAMS, M.A. et al., "Synthesis of conformationally constrained DTPA analogues. Incorporation of the ethylenediamine units as aminopyrrolidines," J. Org. Chem. (1994) 59(13):3616-3625

			•	
Examiner	/Janet Coppins/	Date	07/23/2006	
Signature	, care o coppens,	Considered		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE perwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Sheet

(use as many sheets as necessary)

Complete if Known			
Application Number	10/824,743		
Filing Date	April 15, 2004		
First Named Inventor	David Edwin Thurston		
Group Art Unit	1626		
Examiner Name	Coppins, Janet L.		
Attorney Docket Number	065435-9035		

	U.S. PATENT DOCUMENTS					
Examiner Initials	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document			
JC	3,523,941	Leimgruber et al.	8/11/1970			
JC	3,524,849	Batcho et al.	8/18/1970			
JC	4,185,016	Takanabe et al.	1/22/1980			
JC	4,239,683	Takanabe et al.	12/16/1980			
JC	4,309,437	Ueda et al.	1/5/1982			
JC	5,143,854	Pirrung et al.	9/1/1992			
JC	5,545,568	Ellman et al.	8/13/1996			
JC	6,747,144	Thurston et al.	6/8/2004			
JC	6,562,806	Thurston et al.	5/13/2003			
JC	6,608,192	Thurston et al.	8/19/2003			
JC	2003-0120069	Thurston et al.	6/26/2003			
JC	2003-0195196	Thurston et al.	10/16/2003			
JC	2004-0092736	Thurston et al.	5/13/2004			

FOREIGN PATENT DOCUMENTS							
Examiner Initials	Country Code	Foreign Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Translation	English Abstract	
JC	wo	88/07378	Cancer Research Campaign Technology Ltd.	10/6/1988			
JC	wo	89/10140	Cancer Research Campaign Technology Ltd.	11/2/1989			
JC	wo	92/19620 D	Centre National de la Recherche Scientifique	11/12/1992			

Examiner . Signature	/Janet Coppins/	Date Considered	07/23/2006
-------------------------	-----------------	--------------------	------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer. Patent and Trademark Office, Washington, DC 0231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box Alexandria, VA 22313-1450.

0.11	Cities and impervious reduction yet of 1993, the persons are required to respond to a contection of unformation diffess it contains a valid OMB control num						
Substitute for form 1449/PTO			Complete if Known				
		Application Number	10/824,743				
INFORMATION DISCLOSURE			OSURE	Filing Date April 15, 2004			
STATEMENT BY APPLICANT			ICANT	First Named Inventor	David Edwin Thurston		
		Group Art Unit 1626					
(use as many sheets as necessary)		Examiner Name Coppins, Janet L.					
Sheet	2	of	2	Attorney Docket Number	065435-9035		

			U.S. PA	TENT DOCUMENT	S			
Examiner Initials		U.S. Patent Document Nu	mber	Name of Patentee or Applicant of Cited Document		Date of Publication of Cited Document		
			FOREIGN	PATENT DOCUME	NTS			
Examiner Initials	Coun Cod		Name of Patentee or Applicant of Cited Document		Date of Publication of Cited Document		Translation	English Abstract
JC	wo	93/08288	Cancer F	Research Campaign	4/29/1993			
JC	wo	93/18045	Cancer R Technolo	Research Campaign	9/16/1993			
JC	wo	97/01560 D	Pharmac	opeia, Inc.	1/16/1997			
JC	wo	00/12506	The University of Portsmouth Higher Education Corp.		3/9/2000			
JC	wo	00/12507	The University of Portsmouth Higher Education Corp.		3/9/2000			
JC	EP	0239400A2	Winter, 0	G.P.	9/30/1987			
JC	FR	2027356	Fujisawa Ltd.	Pharmaceutical Co.	12/29/1969			
JC	FR	2586683 D		ational de la ne Scientifique	3/6/1987			_
JC	GB	1299198 D	Fujisawa Pharmaceutical Co. Ltd.		12/6/1972			
JC	JP	53-82792	Microbiological Chemical Research		7/21/1978			
JC	JP	57131791	Fujisawa Pharmaceutical Co. Ltd.		8/14/1982			
JC	JP	58180487	Kyowa F	lakko Kogyo Co. Ltd.	10/21/1983		Х	

Examiner Signature	/Janet Coppins/	Date Considered	07/23/2006

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer. Patent and Trademark Office, Washington, DC 0231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box Alexandria, VA 22313-1450.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE The Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

14

Complete if Known

Application Number 10/824,743

Filling Date April 15, 2004

First Named Inventor David Edwin Thurston

Group Art Unit 1626

Examiner Name Coppins, Janet L.

Attorney Docket Number 065435-9035

(use as many sheets as necessary)

Sheet 1 of

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.					
JC	ALBERICIO, F. et al., "NPE-Resin, A New Approach to the Solid-Phase Synthesis of Protected Peptides and Oligonucleotides II. Synthesis of Protected Peptides <sup>1,2</sup> ," <i>Tetrahedron Letters</i> , 32:1515-1518 (1991)					
JC	ALBERICIO, F. et al., "NPE-resin, a new approach to the solid-phase synthesis of protected peptides and oligonucleotides," <i>Peptides</i> 1990, Proc. 21.sub.st Eur. Pept. Symp., 134-136 (1990)					
JС	ALTHIUS, T. H. and HESS, H. J., "Synthesis and Identification of the Major Metabolites of Prazosin Formed in Dog and Rat," J. Medicinal Chem., 20(1), 146-148 (1977)					
JC	ARIMA et al., "Studies on Tomaymycin, a New Antibiotic. I. Isolation and Properties of Tomaymycin," J. Antibiotics, 25, 437-444 (1972)					
JC	ARISTOFF, J and JOHNSON, P., "Synthesis of CBI-PDE-I-Dimer, the Benzannelated Analogue of CC-1065," J. Org. Chem., 57, 6234-6239 (1992)					
JC	BAGSHAWE et al., "Antibody-Enzyme Conjugates Can Generate Cytotoxic Drugs from Inactive Precursors at Tumor Sites," Antibody, Immunoconjugates, and Radiopharmaceuticals, 4, 915-922 (1991)					
JC	BARALDI, P.G. et al., "Design, synthesis and biological activity of a pyrrolo[2,1-c][1,4]benzodiazepine (PBD)-distamycin hybrid," <i>Bioorganic &amp; Medicinal Chemistry Letters</i> , vol. 8, No. 21, 3019-3024 (1998)					
JC	BARALDI, P.G. et al., "Synthesis, in Vitro Antiproliferative Activity, and DNA-Binding Properties of Hybrid Molecules Containing Pyrrolo[2,1-c][1,4]benzodiazepine and Minor-Groove-Binding Oligopyrrole Carriers," J. Med. Chem., 42, 5131-5141 (1999)					
JC	BAYLEY, H. et al., "Photoactivatable drugs," TIPS, 8, 138-143 (1987)					

Examiner	/Janet Coppins/	Date	07/02/0005
Signature	/ danet coppins/	Considered	07/23/2006

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO  INFORMATION DISCLOSURE			•	Complete if Known		
				Application Number	10/824,743	
			OSURE	Filing Date	April 15, 2004	
STATEMENT BY APPLICANT  (use as many sheets as necessary)		First Named Inventor	David Edwin Thurston			
		Group Art Unit	1626			
		Examiner Name	Coppins, Janet L.			
Sheet	2	of	14	Attorney Docket Number	065435-9035	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.					
JC	BERRY, J. M. et al., "Solid-phase synthesis of DNA-interactive pyrrolo[2,1-c][1,4]benzodiazepines," Tetrahedron Letters, 41, 6171-6174 (2000)					
JC	BI, Y. et al., "Building blocks for peptide and carbamate libraries", Bioorganic & Medicinal Chemistry Letters, vol. 6, No. 19, 2299-2300 (1996)					
JC	BI, Y., et al., "Building blocks for peptide and carbamate libraries," Chemical Abstracts, vol. 125, No. 23, 1013 (1996)					
JC	BOGER et al., "CC-1065 and the Duocarmycins: Synthetic Studies," Chem. Rev., 97, 787-828 (1997)					
JC	BOSE et al., "New Approaches to Pyrrolo[2,1-c][1,4]benzodiazepines: Synthesis, DNA-binding and cytotoxicity of DC-81," <i>Tetrahedron</i> , 48, 751-758 (1992)					
JC	BOSE, D.S. et al., "Rational Design of a Highly Efficient Irreversible DNA Interstrand Cross-Linking Agent Based on the Pyrrolobenzodiazepine Ring System," J. Am. Chem. Soc., 114, 4939-4941 (1992)					
JC	BRIDGES, R.J. et al., "Conformationally Defined Neurotransmitter Analogues. Selective Inhibition of Glutamate Uptake by One Pyrrolidine-2,4-dicarboxylate Diastereomer," J. Med. Chem., 34, 717-725 (1991)					
JC	BROWN, S.C. et al., "NMR Solution Structure of a Peptide Nucleic Acid Complexed with RNA," Science, 265, 777-780 (1994)					
JC	BUNDGAARD, H., "Design and Application of Prodrugs," A Textbook of Drug Design and Development, eds Krogsgaard-Lassen, P., and Bundgaard, H., Harwood Academic Press, 113-135 (1991)					

Examiner		Data	
Diamine	/Janet Coppins/	Date	05/05/050
C:	/Janet Coppins/	1	07/23/2006
Signature		Considered	07,2000
		Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Onder the Paperwork Reduction Act of 1995, no persons are required to respond to a connection of information unless it contains a valid OWB number.					
Substitute for form 1449B/PTO			Complete if Known			
		Application Number	10/824,743			
INFORMATION DISCLOSURE			LOSURE	Filing Date April 15, 2004		
STATEMENT BY APPLICANT		First Named Inventor	David Edwin Thurston			
		Group Art Unit	1626			
(use as many sheets as necessary)			ry)	Examiner Name Coppins, Janet L.		
Sheet	3	of	14	Attorney Docket Number	065435 0025	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	BURGESS, K. et al., "Solid Phase Synthesis of Oligoureas", J.Ame. Chem. Soc., 119: 1556-1564 (1997)
JC	BURGESS, K et al., "Solid Phase Synthesis of Unnatural Biopolymers Containing Repeating Urea Units," Agnew Chem. Int. Ed. Engl, 34, No. 8:907-909 (1995)
JC	CARRUTH, J.A.S., "Clinical applications for photodynamic therapy," J. Photochem Photobiol., 9, 396-397 (1991)
JC	CHO, CY et al., "An Unnatural Biopolymer", Science, 261: 1303-1305 (1993)
JC	COURTNEY, S. M. et al., "A new convenient procedure for the synthesis of pyrrolo[2,1-c][1,4]benzodiazepines", Tetrahedron Letters, vol. 34, No. 33, 5327-28 (1993)
JC	CULVER et al., "In Vivo Gene Transfer with Retroviral Vector-Producer Cells for Treatment of Experimental Brain Tumors," Science, 256, 1550-1552 (1992)
JC	DALTON, S. and TREISMAN, R, "Characterization of SAP-1, a Protein Recruited by Serum Response Factor to the c-fos Serum Response Element," Cell, 68, 597-612 (1992)
JC	DAMAYANTHI, Y., et al., "Design and synthesis of novel pyrrolo {2,1-c][1,4] benzodiazepine-Lexitropsin Conjugates," J. Org. Chem., 64, 290-292 (1999)
JC	DANGLES, O. et al., "Selective Cleavage of the Allyl and Allyloxycarbonyl Groups through Palladium-Catalyzed Hydrostannolysis with Tributyltin Hydride. Application to the Selective Protection-Deprotection of Amino Acid Derivatives and in Peptide Synthesis," J. Org. Chem., 52, 4984-4993 (1987)

Examiner	/Janet Coppins/	Date	07/23/2006
Signature	, , , , , , , , , , , , , , , , , , , ,	Considered	07/25/2000

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number

Substitute for t	form 1449B/PTO			Complete if Known		
		•		Application Number	10/824,743	
INFOR	MATIO	N DISCL	OSURE	Filing Date	April 15, 2004	
STATEMENT BY APPLICANT				First Named Inventor	David Edwin Thurston	
				Group Art Unit	1626	
(use as many sheets as necessary)				Examiner Name	Coppins, Janet L.	
Sheet	4	of	14	Attorney Docket Number	065435-9035	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	DRESSMAN, B.A., et al., "Solid Phase Synthesis of Hydantoins Using a Carbamate Linker and a Novel Cyclization/Cleavage Step," <i>Tetrahedron Letters</i> , 37, 937-940 (1996)
JC	DROST, K.J. and CAVA, M.P., "A Photochemically Based Synthesis of the Benzannelated Analogue of the CC-1065 A Unit," J. Org. Chem., 56:2240-2244 (1991)
JC	EASHOO, M. et al., "Fibers from a Low Dielectric Constant Fluorinated Polyimide: Solution Spinning and Morphology Control," J. Polymer Science, 35:173-185 (1997)
JC	EDMAN, P. and BEGG, G., "A Protein Sequenator," Eur. J. Biochem., 1, 80-91 (1967)
JC	EGHOLM, M et al., "Peptide Nucleic Acids (PNA). Oligonucleotide Analogues with an Achiral Peptide Backbone," J. Am. Chem. Soc., 114, 1895-1897 (1992)
JC	EGHOLM, M et al., "PNA hybridizes to complementary oligonucleotides obeying the Watson-Crick hydrogen-bonding rules," <i>Nature</i> , 365, 566-568 (1993)
JC	ENGLEHARDT et al., "Direct gene transfer of human CFTR into human bronchial epithelia of xenografts with E1-deleted adenoviruses," Nature Genetics, 4, 27-34 (1993)
JС	FARMER, J.D. et al., "DNA binding properties of a new class of linked anthramycin analogs,", Chemical Abstracts, Abstract No. 239940r, vol. 114, No. 25, 25 899-903 (1991)
JC	FIGLIOZZI, G.M. et al., "Synthesis of N-substituted Glycine Peptoid Libraries," Methods in Enzymology, 267: 437-447 (1996)

Examiner		<b>T</b>	
Examine	/ Tam a b /	Date	1
	/Janet Coppins/		07/23/2006
Signature	, care of principle	Considered	1 07/23/2006
Olg.itature		Considered	1

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for fo	orm 1449B/PTO		•	Complete if Known		
		•		Application Number	10/824,743	
<b>INFOR</b>	MATION	N DISCL	OSURE	Filing Date	April 15, 2004	
STATEMENT BY APPLICANT				First Named Inventor	David Edwin Thurston	
				Group Art Unit	1626	
	(use as many she	ets as necessary)	)	Examiner Name	Coppins, Janet L.	
Sheet 5 of 14		Attorney Docket Number	065435-9035			

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	FOLOPPE, M.P. et al., "DNA-binding properties of pyrrolo[2,1-c][1,4]benzodiazephine N10-C11 amidines," Eur. J. Med. Chem., 31, 407-410 (1996)
JC	FUJISAWA PHARMACEUTICAL CO., LTD., Abstract No. 139983k, "Benzodiazepine derivatives", Chemical Abstracts, vol. 99, No. 17, 603 (1983)
JC	FUJISAWA PHARMACEUTICAL CO., LTD., Abstract No. 72145x, "Benzodiazepine derivatives", Chemical Abstracts, vol. 98, No. 9, 638 (1983)
JC	FUJISAWA PHARMACEUTICAL CO., LTD., "Benzodiazepine derivatives," SciFinder Scholar, 2-3 (2002)
JC	FUKUYAMA, T. et al., "Total Synthesis of (+)-Porothramycin B," Tetrahedron Letters, vol. 34, 16, 2577-2580 (1993)
JC	FURKA, A. et al., "General method for rapid synthesis of multicomponent peptide mixtures," Int. J. Peptide Protein Res., 37, 487-493 (1991)
JC	GARCIA-ECHEVERRIA, C., "A Base Labile Handle for Solid Phase Organic Chemistry", Tetrahedron Letters, 38,52, 8933-8934 (1997)
JC	GRANT, R. et al., Grant and Hackh's Chemical Dictionary, McGraw-Hill Book Company, 282 (1987)
JC	GREENE, T.W. and WUTS, P.G.M., Protective Groups in Organic Synthesis, John Wiley & Sons, 2 <sup>nd</sup> ed., Ch 7, 315-345 (1991)

Examiner		Data	
Signature	/Janet Coppins/	Date	07/23/2006
Signature		Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Officer die Fap	CIWOIK REGUCTIO	11 Act 01 1993, 11	o-bergous are reduited to tespond i	to a confection of information unless it contains a valid OMB number.	
Substitute for t	form 1449B/PTO	٠	•	Complete if Known		
		•		Application Number	10/824,743	
INFOR	MATION	N DISCL	OSURE	Filing Date	April 15, 2004	
STATEMENT BY APPLICANT				First Named Inventor David Edwin Thurston		
				Group Art Unit 1626		
(use as many sheets as necessary)				Examiner Name Coppins, Janet L.		
Sheet	6	of	14	Attorney Docket Number	065435-9035	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	GREGSON, S. et al., "Synthesis of a novel C2/C2'-exo unsaturated pyrrolobenzodiazepine cross-linking agent with remarkable DNA binding affinity and cytotoxicity," Chemical Communications, 797-798 (1999)
JC	GREGSON, S.J. et al., "Design, Synthesis and Evaluation of a Novel Pyrrolobenzodiazepine DNA-Interactive Agent with Highly Efficient Cross-Linking Ability and Potent Cytotoxicity", J. Med. Chem., 44: 737-748 (2001)
JC	GREGSON, S.J. et al., "Effect of C2-exo Unsaturation on the Cytotoxicity and DNA-Binding Reactivity of Pyrrolo[2,1-c]1,4]benzodiazepines", Bioorganic & Medicinal Chemistry Letters, 10: 1845-1847 (2000)
JC	GUIOTTO, A. et al., "Synthesis of novel C7-aryl substituted pyrrolo[2,1-c][1,4]benzodiazepines (PBDs) via Pro-N10-troc protection and suzuki coupling," <i>Bioorganic &amp; Medicinal Chemistry Letters</i> , 8, No. 21, 3017-3018 (1998)
JC	HARA et al., "DC 102, a new glycosidic pyrrolo(1,4)benzodiazepine antibiotic produced by streptomyces sp.", J. Antibiotics, 41, 702-704 (1988)
JC	HAUSKE, J. R. and DORFF, P., "Solid Phase CBZ Chloride Equivalent. A New Matrix Specific Linker", Tetrahedron Letters, 36, 10, 1589-1592 (1995)
JC	HOCART et al., "Highly potent cyclic disulfide antagonists of somatostatin," J. of Medicinal Chem., 42:11 (1999)
JC	HOCHLOWSKI, J. et al., "Abbeymycin, a new anthramycin-type antibiotic produced by a streptomycete," J. Antibiotics, 40, 145-148 (1987)
JC	HOLMES, C.P. and JONES, D.G., "Reagents for Combinatorial Organic Synthesis: Development of a New O-Nitrobenzyl Photolabile Linker for Solid Phase Synthesis", J. Org. Chem., 60, 2318-2319 (1995)

Engarine		T 8 .	
Examiner	/Janet Coppins/	Date	07/23/2006
Signature	/ dance coppins/	Considered	07/23/2000
- Buntan		Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for f	orm 1449B/PTO		•	Complete if Known		
5100111111 TOT 1		•		Application Number	10/824,743	
INFORMATION DISCLOSURE				Filing Date	April 15, 2004	
STATEMENT BY APPLICANT			ICANT	First Named Inventor	David Edwin Thurston	
				Group Art Unit	1626	
	(use as many she	ets as necessary)		Examiner Name	caminer Name Coppins, Janet L.	
Sheet 7 of 14		Attorney Docket Number	065435-9035			

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	HUBER, B. et al., "Retroviral-mediated gene therapy for the treatment of hepatocellular carcinoma: An innovative approach for cancer therapy," <i>Proc. Natl. Acad. Sci. USA</i> , 88, 8039-8043 (1991)
JC	HURLEY, L. and NEEDHAM-VANDEVANTER, D., "Covalent Binding of Antitumor Antibiotics in the Minor Groove of DNA. Mechanism of Action of CC-1065 and the Pyrrolo(1,4)benzodiazepines," Acc. Chem. Res., 19, 230-237 (1986)
JC	ITOH et al., "Sibanomicin, a new pyrrolo(1,4)benzodiazepine antitumor antibiotic produced by a micromonospora sp." J. Antibiotics, 41, 1281-1284 (1988)
JC	JENKINS, T.C. et al., "Structure of a Covalent DNA Minor Groove Adduct with a Pyrrolobenzodiazepine Dimer: Evidence for Sequence-Specific Interstrand Cross-Linking," J. Med. Chem., 37, 4529-4537 (1994)
JC	JUNGHEIM, L.N. and SHEPHERD, T.A., "Design of Antitumor Prodrugs: Substrates for Antibody Targeted Enzymes," Am. Chem. Soc. Chem. Rev., 94, 1553-1566 (1994)
JC	KAMAL, A., et al., "An Efficient Synthesis of Pyrrolo[2,1-c][1,4] Benzodiazepine Antibiotics via Reductive Cyclization," <i>Bioorg. Med. Chem. Ltrs</i> , 7, No. 14, 1825-1828 (1997)
JC	KAMAL, A., et al., "Synthesis of Pyrrolo [2,1-c][1,4]-Benzodiazepene Antibiotics: Oxidation of Cyclic Secondary Amine with TPAP", <i>Tetrahedron</i> , v. 53, No. 9, 3223-3230 (1997)
JC	KAPOOR, T.M. et al., "Exploring the Specificity Pockets of Two Homologous SH3 Domains Using Structure-Based, Split-Pool Synthesis and Affinity-Based Selection," J. Am. Chem. Soc. 120:23-29 (1998)
JC	KATRITZKY et al., Heterocyclic Chemistry, John Wiley & Sons, Inc., 247-253 (1960)

Examiner	/Torot Compine/	Date	07/23/2006
Signature	/Janet Coppins/	Considered	07/23/2000

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO			•	Complete if Known		
				Application Number	10/824,743	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT			OSURE	Filing Date	April 15, 2004	
			ICANT	First Named Inventor	David Edwin Thurston	
				Group Art Unit	1626	
(use as many sheets as necessary)				Examiner Name	Coppins, Janet L.	
Sheet	8	of	14	Attorney Docket Number	065435-9035	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	KENNEDY, J.C. and POTTIER, R.H., "Endogenous protoporphyrin IX, a clinical useful photosensitiser for photodynamic therapy," J. Photochem Photobiol, 14, 275-292 (1992)
JC	KOHN, K., "Anthramycin," Antibiotics III, Springer-Verlag, NY, 3-11 (1975)
JC	KONISHI, M. et al., "Chicamycin, a new antitumor antibiotic II. Structure determination of chicamycins A and B," J. Antibiotics, 37, 200-206 (1984)
JC	KUNIMOTO et al., "Mazethramycin, a new member of anthramycin group antibiotics," J. Antibiotics, 33, 665-667 (1980)
JC	KUNZ, H. and DOMBO, B., "Solid Phase Synthesis of Peptide and Glycopeptides on Polymeric Supports with Allylic Anchor Groups," Angew Chem. Int. Ed. Engl, 5, 711-713 (1988)
JC	KUZMICH, S. et al., "Increased levels of glutathione S-transferase π transcript as a mechanism of resistance to ethacrynic acid," Journal of Biochemistry, 281, 219-224 (1992)
JC	LANGLEY, D.R. and THURSTON, D.E., "A versatile and efficient synthesis of carbinolamine-containing pyrrolo[1,4]benzodiazepines via the cyclization of N-92-aminobenzoyl)pyrrolidine-2-carboxaldehyde diethyl thioacetals: total synthesis of prothracarcin," J. Org. Chem., 52, 91-97 (1987)
JC	LEBER, J.D. et al., "A revised structure for sibiromycin," J. Am. Chem. Soc., 110, 2992-2993 (1988)
JC	LEIMGRUBER, W. et al., "Isolation and characterization of anthramycin, a new antitumor antibiotic," J. Am. Chem. Soc., 87, 5791-5793 (1965)

	<del>                                      </del>			
Examiner	/Janet Coppins/	Date	07/23/2006	ļ
C:	/Janet Coppins/	1	07/23/2000	1
Signature		Considered		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Onder the rup	CI WOIR ICCOUNTIO	11 ACT 01 1333, 110	o-persons are required to respond t	persons are required to respond to a concernor of unformation unless it contains a valid OMB number.		
Substitute for form 1449B/PTO			•	Complete if Known			
		•		Application Number	10/824,743		
INFORMATION DISCLOSURE			OSURE	Filing Date	April 15, 2004		
STATEMENT BY APPLICANT		First Named Inventor	David Edwin Thurston				
				Group Art Unit	1626		
(use as many sheets as necessary)		Examiner Name	Coppins, Janet L.				
Sheet	9	of	14	Attorney Docket Number	065435-9035		

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	LEIMGRUBER, W. et al., "The structure of anthramycin," J. Am. Chem. Soc., 87, 5793-5795 (1965)
JC	LEIMGRUBER, W. et al., "Total synthesis of anthramycin," J. Am. Chem. Soc., 90, 5641-5643 (1968)
JC	LESCRINIER, T. et al., "DNA-Binding Ligands from Peptide Libraries Containing Unnatural Amino Acids," Chem. Eur. J., 4, 3, 425-433 (1998)
JC	LEWIS A.D. et al., "Glutathione and glutathione-dependent enzymes in ovarian adenocarcinoma cell lines derived from a patient before and after the onset of drug resistance: intrinsic differences and cell cycle effects," Carcinogenesis, 9, 1283-1287 (1988)
JC	LOWN et al., "Molecular mechanism of binding of pyrrolo(1,4)benzodiazepine antitumour agents to deoxyribonucleic acid – anthramycin and tomaymycin," Biochem. Pharmacol. (1979), 28 (13), 2017-2026; and Abstract No. 51709
JC	MIZUSHIMA, S. and NAGATA, S., "pEF-BOS, a powerful mammalian expression vector," Nucl. Acids Res., 18, 5322 (1990)
JC	MONKS, A. et al., "Feasibility of High-Flux Anticancer Drug Screen Using a Diverse Panel of Cultured Human Tumor Cell Lines," Journal of National Cancer Institute, 83, 757-766 (1991)
JC	MORAN, E.J. et al., "Novel Biopolymers for Drug Discovery: Biopolymers", <i>Peptide Science</i> , John Wiley and Sons, 37: 213-19 (1995)
JC	MORGAN, R.A. and ANDERSON, W.F., "Human Gene Therapy," Annu. Rev. Biochem., 62, 191-217 (1993)

Examiner	/Janet Coppins/	Date	07/23/2006
Signature	,	Considered	07, 23, 2000

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no-persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO  INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use as many sheets as necessary)			•	Complete if Known		
				Application Number	10/824,743	
			OSURE	Filing Date	April 15, 2004	
			ICANT	First Named Inventor	David Edwin Thurston	
				Group Art Unit	1626	
			)	Examiner Name	Coppins, Janet L.	
Sheet	10	of	14	Attorney Docket Number	065435-9035	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	MOSMANN, T., "Rapid Colorimetric Assay for Cellular Growth and Survival: Application to Proliferation and Cytotoxicity Assays," J. Immunological Methods, 65, 55-63 (1983)
JC	MULLEN, D.G. and BARANY, G., "A New Fluoridolyzable Anchoring Linkage for Orthogonal Solid-Phase Peptide Synthesis: Design, Preparation, and Application of the N-(3 or 4)-[[4-(Hydroxymethyl) phenoxy]-tert-butylphenylsilyl]phenyl Pentanedioic Acid Monoamide (Pbs) Handle", J. Org. Chem., 53, 5240-5248 (1988)
JC	NAGASAKA, T. and KOSEKI, Y, "Stereoselective Synthesis of Tilivalline," Journal of Organic Chemistry, vol. 63, No. 20, 6797-6801 (1998)
JC	NAGASAKA, T. et al., "Stereoselective Synthesis of Tilivalline," Tetrahedron Letters, 30:14, 1871-1872 (1989)
JC	NICOLAOU, K.C. et al., "Designed Enediynes: A New Class of DNA-Cleaving Molecules with Potent and Selective Anticancer Activity," Science, 256, 1172-1178 (1992)
JC	NIELSON, P.E. et al., "Sequence-Selective Recognition of DNA by Strand Displacement with a Thymine-Substituted Polyamide," Science, 254, 1497-1500 (1991)
JC	O'NEIL, I.A., et al., "The Synthesis of Functionalized Pyrrolo-[2,1-c][1,4]-Benzodiazepines," Synlett, 75-78 (1997)
JC	O'NEIL, Chemical Abstract No. 171573p, "The synthesis of Functionalized Pyrrolo-[2,1-c][1,4]-Benzodiazepines", Chemical Abstracts, vol. 126, No. 13, 618 (1997)
JC	O'NEIL, I.A. et al., "DPPE: A Convenient Replacement for Triphenylphosphine in the Staudinger and Mitsunobu Reactions", Tetrahedron Letters, vol. 39, No. 42, 7787-7790 (1998)

Examiner	/Janet Coppins/	Date	07/23/2006
Signature	/Janet Coppins/	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO

Complete if Known

Application Number 10/824,743

INFORMATION DISCLOSURE

Filing Date April 15, 2004

(use as many sheets as necessary)

Sheet 11 of 14

Application Number	10/824,743	
Filing Date	April 15, 2004	
First Named Inventor	David Edwin Thurston	
Group Art Unit	1626	
Examiner Name	Coppins, Janet L.	
Attorney Docket Number	065435-9035	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
PAIKOFF, S.J. et al., "The Solid Phase Synthesis of N-Alkylcarbamate Oligomers", Tetrahedron Letters, 37, No. 32: 5653-5656 (1996)
PILLAI, V.N.R., "Photoremovable protecting groups in organic chemistry," Synthesis, 1-26 (1980)
RAM, Z. et al., "In Situ Retroviral-mediated Gene Transfer for the Treatment of Brain Tumors in Rats," Cancer Research, 53, 83-88 (1993)
RAWAL, V.H. et al., "Photocyclization Strategy for the Synthesis of Antitumor Agent CC-1065: Synthesis of Dideoxy PDE-I and PDE-II. Synthesis of Thiophene and Furan Analogues of Dideoxy PDE-I and PDE-II," J. Org. Chem., 52, 19-28 (1987)
REGULA, J. et al., "Photosensitisation and photodynamic therapy of oesophagael, duodenal and colorectal tumours using 5-aminoleavulic acid induced photoporphyrin IX-a pilot study," Gut, 36, 67-75 (1995)
SAGNOU, M.J. et al., "Design and Synthesis of Novel Pyrrolobenzodiazepine (PDB) Prodrugs for ADEPT and GDEPT," Bioorganic & Medicinal Chemistry Letters, 10, 2083-2086 (2000)
SAHA, A.K. et al., "Diisopropylsilyl-Linked Oligonucleotide Analogs: Solid-Phase Synthesis and Physiocochemical Properties," J. Org. Chem., 58, 7827-7831 (1993)
SATYAM, A. et al., "Design, Synthesis, and Evaluation of Latent Alkylating Agents Activated by Glutathione S- Transferase," J. Med. Chem., 39, 1736-1747 (1996)
SHIMIZU, K et al., "Prothracarcin, a Novel Antitumor Antibiotic," J. Antibiotics, 35, 972-978 (1982)

Examiner	/Janet Coppins/	Date	07/23/2006
C: 4	, dance coppins,		0//23/2006
Signature		Considered	•

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number. Complete if Known Substitute for form 1449B/PTO INFORMATION DISCLOSURE

STATEMENT BY APPLICANT (use as many sheets as necessary) Sheet 12

Application Number	10/824,743	
Filing Date	April 15, 2004	
First Named Inventor	David Edwin Thurston	
Group Art Unit	1626	
Examiner Name	Coppins, Janet L.	
Attorney Docket Number	065435-9035	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.				
JC	SIMON, R.J. et al., "Peptoids: A Modular Approach to Drug Discovery", Proc. Natl. Acad. Sci. USA,89:9367-9371 (1992)				
JC	SOTH, M.J. and NOWICK, J.S., "Unnatural oligomers and unnatural oligomer libraries", Curr. Opin. Chem. Biol., 1:120-129 (1997)				
JC	STAR, W.M., "Light delivery and light dosimetry for photodynamic therapy," Lasers in Medical Science, 5:107-113 (1990)				
JC	SUGGS, J.W. et al., "Synthesis and structure of anthramycin analogs via hydride reduction of dilactams," Tetrahedron Letters, 26, No. 40, 4871-4874 (1985)				
JC	TAKEUCHI, T. et al., "Neothramycins A and B, New Antitumor Antibiotics," J. Antibiotics, 29, 93-96 (1976)				
JC	TEW, K.D. and CLAPPER, M.L., "Glutathione-S-transferase and anti-cancer drug resistance," Mechanism of Drug Resistance in Neoplastic Cells, Woolley, P.V. and Tew, K.D., Eds, Academic Press: Sand Diego, CA 141-159 (1988)				
JC	THURSTON, D.E. and THOMPSON, A.S., "The molecular recognition of DNA," Chem. Brit., 26, 767-772, (1990)				
JC	THURSTON, D.E. and BOSE, D.S., "Synthesis of DNA-Interactive Pyrrolo[2,1-c][1,4]benzodiazepines," Chem. Rev., 94:433-465 (1994)				
JC	THURSTON, D. E., "Advances in the study of Pyrrolo[2,1-c][1,4] benzodiazepine (PBD) Antitumour Antibiotics", Molecular Aspects of Anticancer Drug-DNA Interaction, Neidle, S. and Waring, M.J., Eds.; Macmillan Press Ltd, 1:54-88 (1993)				

Examiner	/Janet Coppins/	Date	07/23/2006	
Signature	/Janet Coppins/	Considered	07/23/2000	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Under the Paperwork Reduction Act of 1995, no-persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO		. Complete if Known			
		•		Application Number	10/824,743
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	April 15, 2004		
		First Named Inventor	David Edwin Thurston		
				Group Art Unit	1626
(use as many sheets as necessary)				Examiner Name	Coppins, Janet L.
Sheet	13	of	14	Attorney Docket Number	065435-9035

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
JC	THURSTON, D.E. et al., "Effect of A-ring modifications on the DNA-binding behavior and cytotoxicity of pyrrolo[2,1-c][1,4]benzodiazepines", Journal of Medicinal Chemistry, 42:1951-1964 (1999)
JC	THURSTON, D.E. et al., "Synthesis of Sequence-selective C8-linked Pyrrolo [2,1-c][1,4] Benzodiazepine DNA Interstrand Cross-linking Agent," J. Org. Chem., 61:8141-8147 (1996)
JC	THURSTON, D.E. et al., "Synthesis of a novel GC-specific covalent-binding DNA affinity-cleavage agent based on pyrrolobenzodiazepines (PBDs),"Chemical Communications, 563-565 (1996)
JC	TSUNAKAWA, M. et al., "Porothramycin, a new antibiotic of the anthramycin group: Production, isolation, structure and biological activity," <i>J. Antibiotics</i> , 41:1366-1373 (1988)
JC	UMEZAWA, H. et al., Chemical Abstract No. 4427a, "Mazethramycins" Chemical Abstracts, vol. 90, No. 1, 428 (1979)
JC	UMEZAWA, H. et al., "Mazethramycins," SciFinder Scholar, 2-3 (2002)
JC	WILSON, S.C. et al., "Design and Synthesis of a Novel Epoxide-Containing Pyrrolo[2,1-c][1,4]benzodiazepine (PBD) via a New Cyclization Procedure," <i>Tetrahedron Letters</i> , 36, No. 35, 6333-6336 (1995)
JC	WILSON, S.C. et al., "Design, Synthesis, and Evaluation of a Novel Sequence-Selective Epoxide-Containing DNA Cross-Linking Agent Based on the Pyrrolo[2,1-c][1,4]benzodiazepine System", J. Med. Chem. 42:4028-4041 (1999)
JC	ZUCKERMAN, R.N. et al., "Discovery of Nanomolecular Ligands for 7-Transmembrane G-Protein-Coupled Receptors from a Diverse N-(Substituted) glycine Peptoid Library", J. Med. Chem., 37:2678-2685 (1994)

Examiner		Date	
Daumine.	(Tomat Commine)	Date	07/23/2006
Signature	/Janet Coppins/	0	1 07/23/2000
Signature		Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number. Complete if Known Substitute for form 1449B/PTO

Duosinaic ioi ii	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				- ·	
		•		Application Number	10/824,743	
INFORMATION DISCLOSURE			OSURE	Filing Date	April 15, 2004	
STATEMENT BY APPLICANT		First Named Inventor	David Edwin Thurston			
				Group Art Unit	1626	
(use as many sheets as necessary)		Examiner Name	Coppins, Janet L.			
Sheet	14	of	14	Attorney Docket Number	065435-9035	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.				
JC	Dictionary of Science and Technology, Professor P.M.B. Walker ed. Larousse plc., pp. 63, 457, 523 (1995)				

Examiner		Date		
	/Janet Coppins/	Date	07/23/2006	i
Signature	/duice coppins/	10 1	07/23/2000	
Signature		Considered		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.